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25X1

19 Nov 65

SUBJECT: Progress Review Meeting, 15 and 16 Nov 65

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1. In accordance with the customer's request, 1 Nov 65, a review meeting was held at the contractor's facility on 15 and 16 Nov 65.

PERSONNEL PRESENT

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2.

3.

DISCUSSION

4. PAR 202/224, Briefing Print Enlarger/3X - 15X Fluid Gate Enlarger:

a. Project background was discussed, and the Briefing Print Enlarger (BPE) breadboard equipment was described. It was emphasized that the equipment was a breadboard. Some of the design concepts embodied work well while others will require further engineering. There is no indication, however, of a need to change the design concept.

b. BPE breadboard equipment was inspected by customer personnel. Its operation was demonstrated.

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c. The following material was also shown:

- (1) A set of Kodabromide prints demonstrating the range of magnification and field size.
- (2) Film test samples made for focus calibration, and
- (3) Focus magnification tests.

d. As a result of discussion, following is a listing of projects for further study in the prototype phase and items of customer preference:

(1) The fluid gate closing mechanism will be simplified. The fluid injection pumps will be changed to deliver more fluid into the gate or other changes as required to reduce the likelihood of air bubbles in the field of view.

(2) The gate ventilation system will be revised for more efficient fume removal than that in the breadboard model. Arrangement for the collection of liquid overflow and disposition of its fumes will also be made.

(3) Means to quickly evaporate or remove the fluid from the film after opening the gate is required.

(4) Forced cooling of the lamphouse and color filters is required. The cooling air must be filtered to reduce dirt accumulation on condensers, lamp, etc.

(5) The customer requested that means be provided to display the correct focus setting for projection through the negative film base (various base thicknesses) in addition to the emulsion toward the lens condition.

(6) The customer requested that a spot probe easel photometer be provided to predict print exposures rather than the broad area system attempted in the breadboard model.

(7) The white diffusing plastic print platen face is unsatisfactory. The customer requested that an opaque, flat white platen surface be provided.

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(8) The customer requested that the objective lens assembly be mounted with a bayonet type or other quick-acting clamp mechanism rather than the captive thumbscrews used in the breadboard.

(9) The printing speed of the enlarger is felt to be suitable, but borderline. The use of a higher wattage, bi-plane filament lamp and other refinements to increase the printing speed by 2 - 4X is proposed for the prototype design.

(10) Provision for handling cut negative sheets was discussed, and it was decided that leader and trailer would be used on those occasions.

e. In three areas of development related to the BPE, [REDACTED] 25X1 will inform us if there is sufficient interest to warrant submission of new PARs:

(1) Study and develop techniques for use of integrated transmittance exposure control for the BPE.

(2) Explore the possibility of using exposure through the green and blue filters of the narrow-band tricolor filters provided on the BPE for "Polycontrast" type printing paper.

(3) Develop and build sample lenses and condenser systems to extend the magnification range of the BPE upward to 140X or 160X.

f. Customer personnel made sample exposures on the BPE breadboard. Prints, 8.5" x 11", at a variety of magnifications were made from an aerial photograph supplied by the contractor and judged to be about 60 l/mm quality. Prints with all six lenses were made of [REDACTED] resolution target 25X1 reputed to have up to 260 l/mm patterns. The high frequency patterns in the [REDACTED] target were poor. The prints made from them did not represent a true test of the enlarger lens performance for other than the lenses for lowest magnifications. Prints were also made of a photo step tablet to demonstrate printing speed. 25X1

g. The customer personnel indicated satisfaction with the arrangement and performance of the breadboard instrument. We expect that they will

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recommend design and fabrication of the prototype instrument with the items described in paragraph 4.d.

5. PAR 214, RT-12 Processor:

a. Contractor proposed to send a crew to the site starting on 29 or 30 Nov 65 to clean the machine thoroughly as a first step toward curing the pinhole problem. Tests on new bleach recommendations will also be made. Customer indicated that either starting date would be satisfactory.

b. On 17 November, we will replace the dryer pulleys in the RT-12 Processor.

c. [] will try to have water filters installed on both hot and cold supply lines to eliminate the possibility of contamination of the machine from this source. The ceiling, walls and floor will be scrubbed down and if possible, the floor will be coated.

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6. PAR 215, RT-24 Processor:

a. On 17 November, we will replace the dryer pulleys and exit turnaround sprocket to correct the dryer speed. Sheet handling characteristics of the machine will then be checked out.

b. A work plan for providing tandem operation of the ferrotyper is being prepared and will be submitted as soon as possible. In view of the extra expense of providing a single-speed control for both processor and ferrotyper, and the fact that speed changes will be very infrequent, contractor was directed to propose individual speed controls.

ACTION ITEMS

7. Customer:

- a. Investigate possible need for potential areas of development related to the BPE listed in paragraph 4.e(1), (2) and (3). Direct contractor to prepare PARs if there is sufficient interest.
- b. Install filters on RT-12 waterlines to eliminate possible machine contamination. Scrub room and if possible coat floor. See paragraph 5.c.

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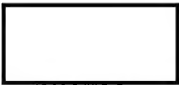
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ACTION ITEMS (continued)

8. Contractor:

- a. PAR 202/224, Briefing Print Enlarger/3X - 15X Fluid Gate Enlarger -
In the prototype phase (BPE) include for investigation items outlined in paragraph 4.d.(1) through (10).
- b. PAR 214, RT-12 Processor:
 - (1) Contractor to visit customer's facility on 29 or 30 Nov 65 to clean RT-12 and test new bleach recommendations. See paragraph 5.a.
 - (2) Contractor to replace RT-12 dryer pulleys on 17 Nov 65, as indicated in paragraph 5.b.
- c. PAR 215, RT-24 Processor:
 - (1) On 17 Nov 65, replace dryer pulleys and exit turnaround sprocket, and check sheet handling characteristics, as indicated in paragraph 6.a.
 - (2) Submit work plan for providing tandem operation of the ferrotyper. See paragraph 6.b.



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